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EXAMINER	
VU, THONG H	

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 10/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)	
	09/737,014	FATTAH ET AL.	
	Examiner	Art Unit	
	Thong H Vu	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 December 2000* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-33 are pending.

Response to Arguments

2. Applicant's arguments filed 8/04/04 have been fully considered but they are not persuasive. Applicant argues as per claim 1, the prior art does not teach "an instantiating one or more business related object on said first computer system".

Examiner points out the business object or business logic [Gupta, business logic, col 4 lines 32-50; business virtual object, col 12 lines 30-50].

3. As per claims 12 and 17, applicant argues the prior art does not teach "one of said service objects is instantiated and associated with one or more instantiated said business objects".

Examiner points out the prior art taught a transport object instantiated in the process address space of the memory by the application program, the transport object selecting a transport mechanism to forward the service object from the application program to the first dynamically-configurable protocol stack [Goldsmith, col 19 lines 48-55] wherein the application program is implemented by Gupta as a business object [Gupta, application collaboration provide the specific integration business logic, col 4 lines 32-50].

Thus, the prior art taught all limitations in claim language. Therefore the rejection is sustained.

Claim Rejections - 35 USC § 101

4. Claim 22 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. (i.e.: an programming construct without a computer readable medium).

the claimed invention lacks patentable utility. (i.e.: an programming construct without a computer readable medium).

the disclosed invention is inoperative and therefore lacks utility. (i.e.: an programming construct without a computer readable medium).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 11 is rejected under 35 U.S.C. § 102(b) as being anticipated by Goldsmith et al [Goldsmith, 5,491,800].

6. As per claim 11, Goldsmith discloses a method for performing a client-server transaction, comprising the steps of

(a) instantiating a transactional object on the client that directly corresponds to a service request [Goldsmith, sub-objects, col 5 lines 15-32, other stream object, col 16 lines 46-62, data object, col 20 lines 3-7];

(b) transporting said object to a server [Goldsmith, transport to server node, col 11 lines 17-27]; and

(c) executing said service on said server [Goldsmith, the task for execution of the service at the server, col 18 lines 30-46].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-4,7-8,12-33 are rejected under 35 U.S.C. § 103 as being unpatentable over Goldsmith et al [Goldsmith, 5,491,800] in view of Gupta et al [Gupta 5,913,061].

8. As per claim 1, Goldsmith discloses a method for performing a transaction between computer systems, comprising the steps of

(a) instantiating a transactional object on the first computer system directly corresponding to a service request [Goldsmith, the caller object is instantiated at a client node to invoke an RPC service request directly to remote server node that correspond with various resources, col 5 lines 15-32; the second API object creates a data stream object for establishing synchronous transactions, col 20 lines 3-8];

(b) instantiating one or more (business-related) objects on said first computer system [Goldsmith, sub-objects, col 5 lines 15-32, other stream object, col 16 lines 46-62, data object, col 20 lines 3-7] ;

(c) said first computer system associating said (business) objects with a said to service object [Goldsmith, create customized solution, col 9 lines 10-27; pre-defined objects based on client-server communication, col 14 lines 10-15];

(d) transporting said service and associated (business) objects to the second computer system [Goldsmith, transport to server node, col 11 lines 17-27]; and

(e) said second computer system executing said service object [Goldsmith, the task for execution of the service at the server, col 18 lines 30-46].

Goldsmith discloses the instantiating an object on the computer system. However Goldsmith does not detail the business related object.

A skilled artisan would have motivation to implement the Goldsmith application and found Gupta teaching. Gupta discloses a modular application collaboration wherein the business virtual object such as an application collaboration objects provides a first instantiates all connectors [Gupta, 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10].

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the an object oriented platform including a first instantiating an business logic or business objects on computer system as taught by Gupta into the Goldsmith's apparatus in order to utilize the object oriented programming. Doing so would provide a reliable delivery mechanism to the client-server communication.

9. Claims 25,32 contain the similar limitations set forth of method claim 1. Therefore, claims 25,32 are rejected for the similar rationale set forth in claim 1.

10. As per claims 2,30 Goldsmith-Gupta disclose (f) modifying said business objects by said second computer system in response to said execution [Goldsmith, modify, col 9 lines 10-28, 40-col 10 line 2]; and (g) returning said service object and said modified objects to said first computer system [Goldsmith, the reply is formatted for retransmission as a packet and forward to the client node, col 18 lines 47-60].

11. As per claims 3,8,33 Goldsmith-Gupta disclose (h) filtering said associated business objects to pass only selected attributes or behaviours [Goldsmith, functionality with selectively modification, col 8 lines 47-64].

12. As per claim 4, Goldsmith-Gupta disclose occurring before step (a), and performed by both said first and said second computer system, of (i) defining a series of said service objects; and (j) defining a series of business-related objects as inherent features of object oriented programming.

13. Claims 23-24 and 27-28 contain the similar limitations set forth of apparatus claims 32-33. Therefore, claims 23-24,27-28 are rejected for the similar rationale set forth in claims 32-33.

14. Claims 29,31 contain the similar limitations set forth of apparatus claims 32-33. Therefore, claims 29,31 are rejected for the similar rationale set forth in claims 32-33.

15. As per claim 7, Goldsmith-Gupta disclose a method for performing a client-server transaction, comprising the steps of:

(a) defining a series of transactional objects on a client, each object directly corresponding to a service request [Goldsmith, the caller object is instantiated at a client node to invoke an RPC service request directly to remote server node that correspond with various resources, col 5 lines 15-32; the second API object creates a data stream object for establishing synchronous transactions, col 20 lines 3-8];

(b) defining a series of business-related objects on said server [Goldsmith , create customized solution, col 9 lines 10-27; pre-defined objects based on client-server communication, col 14 lines 10-15. It was obvious that the object-oriented program allows objects defined on either server or client] [Gupta, business virtual object, col 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10];

(c) in response to a service request, instantiating a service object on said client from among said series of service objects [Goldsmith, the caller object is instantiated at a client node, col 5 lines 15-32];

(d) instantiating one business object on said client [Goldsmith, create customized solution, col 9 lines 10-27] [Gupta, business virtual object , col 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10];

(e) associating said one or more business objects with said service object on said client [Goldsmith, a caller object creates the service request packet by combining data and functions associated with the service request, col 20 lines 15-25] [Gupta, business virtual object, col 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10];

(f) transporting said service and associated business objects to a server [Goldsmith, transport to server node, col 11 lines 17-27] [Gupta, business virtual object , col 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10];

(g) executing said service object by said server [Goldsmith, the task for execution of the service at the server, col 18 lines 30-46];

(h) modifying said business objects by said server in response to said execution [Goldsmith, modify some or all functions, col 8 lines 47-64] [Gupta, business virtual object , col 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10]; and

(i) returning said service object and said modified objects to said client [Goldsmith, a series of objects send-receive-reply data stream transaction between the client and server nodes, col 5 lines 45-60; including modify some or all functions, col 8 lines 47-64].

16. Claim 26 contains the similar limitations set forth of method claim 7. Therefore, claim 26 is rejected for the similar rationale set forth in claim 7.

17. As per claim 12, Goldsmith discloses a client-server process comprising:

(a) a client process [Goldsmith, client node, 710, Fig 7] including:

(i) an application layer in which exists a series of transactional objects directly corresponding to a service request, and a series of business-related objects [Gupta, business virtual object , col 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10], and wherein, in response to a service request, one of said service objects is instantiated and associated with one or more instantiated said business objects [Goldsmith, the caller object is instantiated at a client node to invoke an RPC service request directly to remote server node that correspond with various resources, col 5 lines 15-32; the second API object creates a data stream object for establishing synchronous transactions, col 20 lines 3-8]; and

(ii) an application layer executing said recovered service object [Goldsmith, decapsulation, col 13 lines 15-28,65-col 14 line 9].

An Official Notice is taken that the object oriented programming (CORBA, ORB) provides the object transaction management in two context : direct and indirect [see Lejeune reference, col 7 line 45-col 8 line 15].

However Goldsmith does not explicitly detail

(ii) a middleware layer in which said service and associated business objects are converted into a binary stream including (i) a middleware layer, receiving said binary stream and recovering said service and business objects;

Gupta discloses a method and apparatus for providing collaboration between applications in an information system including an object oriented platform, business

logic, database and middlerware [Gupta, col 3 line 60-col 4 line 50], business objects [Gupta,col 12 lines 30-50]; interpret and convert mechanism [Gupta, col 19 lines 42-57]

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the an object oriented platform, business logic, database, middleware, business objects, interpret and convert mechanism as taught by Gupta into the Goldsmith's apparatus in order to utilize the object oriented programming. Doing so would provide a reliable delivery mechanism to the client-server communication.

18. Claim 17 contains the similar limitations set forth of claim 12. Therefore, claim 17 is rejected for the similar rationale set forth in claim 12.

19. As per claim 13, Goldsmith-Gupta disclose said server application layer modifies said business objects or instantiates new business objects depending upon the result of said service execution, and returns said service object and associated business objects to said server middleware layer which, in turn, passes said result to said client middleware layer [Gupta, modify interaction behavior, col 13 lines 57-65].

20. As per claim 14, Goldsmith-Gupta disclose (iii) object schemas contained in the respective application layer, by which said sets of service objects and business objects are defined [Gupta, function schema, col 19 lines 42-57].

21. As per claim 15, Goldsmith-Gupta disclose (iv) filter schemas, contained within the respective middleware layers, which filter instantiated business objects to pass a subset of attributes [Gupta, business module provide a screen to filter records, col 18 lines 52-63].

22. As per claim 16, Goldsmith-Gupta disclose (v) translation schemas translating objects to database form as inherent feature of object oriented database.

23. As per claim 18, Goldsmith-Gupta disclose (d) a database accessible by said server machines via their respective application layer in response to execution of a service object to return said result as a design choice.

24. As per claim 19, Goldsmith-Gupta disclose (e) storage means, on said client and said server machines, for storing a series of service object definitions and a series of business object definitions as inherent feature of object oriented database.

25. As per claim 20, Goldsmith-Gupta disclose (f) a set of filters definitions, stored in said storage means, that are accessed by the client middleware to pass only desired attributes of business objects [Goldsmith, functionality with selectively modification, col 8 lines 47-64].

26. As per claim 21, Goldsmith-Gupta disclose (g) of translational logic, stored in said storage means of said server machines, for translating executing services to database form that can access said database as inherent feature of object oriented database [Goldsmith, translator object, col 16 lines 46-62].

27. As per claim 22, Goldsmith discloses an object oriented programming construct comprising a transactional object directly corresponding to a service request, associated with one or more (business) related objects [Goldsmith, the caller object is instantiated at a client node to invoke an RPC service request directly to remote server node that correspond with various resources, col 5 lines 15-32].

Goldsmith discloses the instantiating an object on the computer system. However Goldsmith does not detail the business related object.

A skilled artisan would have motivation to implement the Goldsmith application and found Gupta teaching. Gupta discloses a modular application collaboration wherein the business virtual object such as an application collaboration objects provides a first instantiates all connectors [Gupta, 12 lines 30-51;col 15 lines 1-21; col 23 line 57-col 24 lines 10].

28. Claims 5-6,9-10 are rejected under 35 U.S.C. § 103 as being unpatentable over Goldsmith et al [Goldsmith, 5,491,800] in view of Gupta et al [Gupta 5,913,061] and further in view of Pandit et al [Pandit, 5,913,402].

29. As per claim 5, Goldsmith-Gupta disclose a dispatcher object interpreting the functions being invoked by the caller [Goldsmith, a dispatcher object interpreting the functions, col 14 lines 15-29]. However Goldsmith does not detail (k) defining translation logic for translating executing business objects to a database form; and (L) accessing a database with said database form objects to conduct an enquiry.

It was well-known in the object oriented programming art that a relational database is translated information into a compatible format [Pandit, an object oriented application with a relational database is to translate database information into a format which is compatible with the object oriented application, col 1 lines 26-42][see Filip, Gordon references]. It was obvious that the object-oriented program could access the database to conduct an data enquiry.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the translation logic of an object oriented programming which translates objects to an database form as taught by Pandit into the Goldsmith-Gupta apparatus in order to utilize the object oriented programming process. Doing so would provide a dynamic and reliable process to access and retrieve data to client request.

30. As per claim 6, Goldsmith-Gupta-Pandit disclose (di) converting said service and associated business objects to a binary stream by said first computer system [Goldsmith, API object provides a data stream a protocol translator, col 15 lines 53-col 16 line 9];

(dii) passing said binary stream to said second computer system; and (diii) reinstantiating said binary stream to recover (decapsulation) said service and associated business objects as inherent feature of a protocol translator [Goldsmith, decapsulation, col 13 lines 15-28,65-col 14 line 9].

31. Claims 9-10 contain the similar limitations set forth of apparatus claims 5,6 in respectively. Therefore, claims 9-10 are rejected for the similar rationale set forth in claims 5,6.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Thong Vu, whose telephone number is (703)-305-4643. The examiner can normally be reached on Monday-Thursday from 8:00AM- 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Jack Harvey*, can be reached at (703) 305-9705.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 305-9700.

Any response to this action should be mailed to: Commissioner of Patent and Trademarks, Washington, D.C. 20231 or faxed to :

After Final	(703) 746-7238
Official:	(703) 746-7239
Non-Official	(703) 746-7240

Hand-delivered responses should be brought to Crystal Park 11,2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Thong Vu
Patent Examiner
Art Unit 2142

JACK B. HARVEY
SUPERVISORY PATENT EXAMINER